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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,390	03/30/2004	Peter E. Hand	359999.35	5402

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EXAMINER	
SHAPIRO, JEFFERY A	

ART UNIT	PAPER NUMBER
3653	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/814,390	HAND ET AL.	
	Examiner	Art Unit	
	JEFFREY A. SHAPIRO	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/28/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/10/08 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al (US 6,363,164 B1) in view of Ramachandran et al (US 6,941,274 B1), and further in view of Partyka et al (US 5,941,363).

As described in Claim 8, Jones discloses an automated teller machine (ATM) as shown in figures 1b-d, that has a processor-based controller and coin receipt and return functions. Note that Jones' ATM vends bills and coins to customers. See Jones, figure 1a and col. 6, lines 22-46, which indicates that a customer's deposit may be returned in either coins, bills or both, and that controller (10) causes the dispensing unit (22) to dispense funds to a user. Figure 1e, for example, illustrates dispenser (22),

communications panel (26), image scanner (12), input receptacle (16), transport mechanism (18), and output receptacles (20a and b), all controlled by processor-based controller (10). Controller (10) also directs information from scanner (12), discriminator (14) to interface (24) which communicates further with remote accounting systems. Jones also discloses a front-end processor (6038) in figures 1u and 1v. See col. 11, lines 35-64. Jones at col. 16, line 56-col. 17, line 30 discloses scanning a bill for various image features and comparing them with stored information. See also Jones at col. 20, line 26-col. 22, line 15, noting EPROM (934), illustrated in figure 4a, and CPU 930. See also Jones at col. 22, lines 30-56 and col. 26, lines 30-56. Jones at col. 27 line 56-col. 28 line 67 and col. 29 line 33-col. 30, line 26 describes microprocessor (212) storing obtained optical image and magnetic data from bills and comparing them with stored patterns stored for example in read only memory (232). Jones also discloses an escrow holding area in col. 77, lines 51-54.

As described in Claims 9-11, Jones further discloses a display (2402) in the form of a touch screen with various currency denominations the machine control will allow to be processed displayed as keys (2406a-g). Note that said display is supported in a bezel assembly. Note that disposing the display either on or adjoining the runway surface is considered to be obvious variations of each other that one ordinarily skilled in the art would have found obvious to use in Jones apparatus. Jones discloses a display (2304) in a bezel with denomination keys (2306a-g) located on a lower area of the bezel that can be construed as a runway area in figures (49a and b) and discussed in col. 65,

line 52-col. 66, line 23. See also figure 50a or 57b as well as col. 66, lines 23-45, col. 72, line 60-col. 73, line 37, and col. 80, lines 49-59.

Jones does not expressly disclose, but Ramachandran discloses placing an ATM type device in a vending machine. See Ramachandran col. 2, line 45-col. 3, line 32 and col. 8, lines 23-42.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have embodied Jones' ATM in a combination ATM/vending machine for the purpose of dispensing snacks and goods as well as handles bank transactions.

The suggestion/motivation to do so would have been increase the range of services available to customers, thereby acting as a further draw to the vending machine, and therefore increasing profits, as suggested by Ramachandran's teaching and disclosure. See Ramachandran, col. 2, line 60-col. 3, line 10. Also, one ordinarily skilled in the art would have recognized the benefit of combining an ATM and vending machine because customers obtaining money at the ATM may be more willing to make impulsive purchases, thereby resulting in increased sales of vended goods as compared to a typical free-standing vending machine.

Further, regarding the use of a vending machine controller (VMC), Applicant's "Background to the Invention" section at paragraph 5, line 1-3 mentions that "vending machines are in wide use..." Paragraph 6 of the same section mentions that MDB/ICP communication protocol allows a bill validator to communicate with a vending machine controller (VMC). Since Ramachandran provides the teaching to retrofit an ATM bill validator in a vending machine, it would therefore have been obvious for one ordinarily

skilled in the art to have used such an MDB/ICP protocol to allow the various controllers and components of the vending system, including the bill and coin validators to communicate with the main controller.

Jones does not expressly disclose, but Partyka discloses that the note validator (14) controls a coin changer (12).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have controlled Jone's coin changer by input from Jones' note validator, and the note validator in turn by the VMC.

The suggestion/motivation would have been to "provide payout of coin change in response to the receiving of a proper bill." See Partyka, col. 2, lines 45-52.

4. Claims 1-5, 7 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al in view of Ramachandran, further in view of Partyka and still further in view of Katou et al (US 2004/0182677 A1).

Jones and Ramachandran disclose the system described above.

Regarding Claims 12-17, see discussion regarding Claims 9-11 above.

Regarding Claims 2-4, Jones discloses that counterfeit detector (210) is controlled directly by microprocessor (212), which is considered analogous to Applicants' "unit controller", and has the "capability to maintain a running total of genuine documents" at col. 29, lines 15-20. Note Jones' ram (226) and rom (232) memory in figure 12. See also col. 30, lines 19-26 of Jones, which discusses programming microprocessor (212).

Regarding Claim 5, note again that Jones discloses displaying information on display (2402), for example. It would have been obvious to display such information as the number of notes dispensed and the number of coins dispensed, or any accounting or other information that one ordinarily skilled in the art would have found necessary to manage and operate Jones' currency handlers.

Jones does not expressly disclose, but Katou discloses a vending machine in the form of automated teller machine (101), having a note acceptor-dispenser (1), a bill discriminator (30), a note box (60), a note hopper (40) that temporarily stores said notes, and a transportation unit (501, 502, 503, 504) in a combination such that said notes are transported to either a note box, a temporary storage or escrow box, or through the bill discriminator. See figures 6-13, 23-26, 30a-30c and 31. Also note the direction arrows of figures 6-13, 23-26, 30a-30c and 31.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added the transport mechanism disclosed and taught by Katou illustrated in Katou's figure 6, for example, to the transport mechanism of Jones such that said notes are transported to either a note box, a temporary storage or escrow box, or through the bill discriminator as well as from input to output receptacles.

The suggestion/motivation for adding Katou's transport mechanism to Jones' would have been to prevent jamming of notes. See Katou, paragraphs 10 and 18. Further, it would have been obvious to use closed note boxes or cassettes or magazines to receive notes rather than open receptacles as Jones discloses so as to promote automation of the note handling process.

Regarding Claims 19 and 20, which require the "vending machine protocol program to accept notes only up to a first value...and a processor controlling the acceptance and recognition of notes up to a second value exceeding said first value", note that it would have been obvious to upgrade a vending machine, which accepts coins or bills up to a one value, and increase the capability of the vending machine to accept bills of a higher value by installing a bill validator having a processor controller that allows bills of a second, higher maximum value, since prices of items can be expected to rise over time, thus requiring larger denominations to be transacted during a vend.

5. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al in view of Ramachandran, further in view of Partyka and still further in view of Katou et al (US 2004/0182677 A1) and still further in view of Pope (US 2002/0195309).

Jones, Ramachandran and Katou disclose the system described above.

Regarding Claims 19 and 20, Jones does not expressly disclose, but Pope discloses the particulars of retrofitting a validator that accepts currency at a second value which is higher than the value of a maximum first denomination value accepted/handled by the vending machine controller (VMC). See Pope at paragraphs 1-10.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added the transport mechanism disclosed and taught by Katou illustrated

in Katou's figure 6, for example, to the transport mechanism of Jones such that said notes are transported to either a note box, a temporary storage or escrow box, or through the bill discriminator as well as from input to output receptacles.

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Response to Arguments

6. Applicant's arguments filed 12/18/07 have been fully considered but they are not persuasive.

Regarding Applicant's assertions concerning the lack of disclosure of storing notes in a dispensable and a non-dispensable fashion, such terms as "dispensable" and

"non-dispensable" are considered relative terms. Applicant asserts that Jones only stores notes in a non-dispensable fashion because all notes stored are not issued as change, but are only collected.

However, note that Katou discloses and teaches use of a temporary storage box, a deposit box, a withdrawal box, a reject box and a recycle box. These boxes are described in detail in paragraph 2 of Katou as follows.

> [0002] The conventional bill deposit/withdrawal machine mounted on an automated teller machine used in, for example, a banking organ or the like includes a deposit/withdrawal port for accepting bills (or paper money) inputted by a user, delivering the bills inputted by the user, and accepting bills to be discharged to a user, a bill discriminating unit for discriminating bills, and a bill transport path for transporting bills while passing them through the bill discriminating unit. The construction of the conventional bill deposit/withdrawal machine further includes the combination of units including a temporary storage box for temporarily accepting deposited bills, a deposit box for accepting deposited bills, a withdrawal box for delivering bills for withdrawal, a recycle box for accepting and delivering bills for both deposit and withdrawal, a reject box for accepting deposited bills which are not accepted in the deposit box or the recycle box and bills which are delivered from the withdrawal box, but not withdrawn, and a load/recovery for delivering bills to be supplemented for the recycle box and accepting bills recovered from the recycle box, and so forth. Various constructions have been proposed for the construction and arrangement of those units and the route of the bill transport path for connecting those units.

Paragraphs 64-66 further discuss detail of the use of these boxes in Katou's apparatus.

> [0064] The bill deposit/withdrawal mechanism 1 is composed of a deposit/withdrawal port 20 for which a user makes the input/takeout of bills, a bill discriminating unit 30 for discriminating bills, a temporary storage box 40 for accepting deposited bills once until the materialization of a transaction, one deposit box 60 for accepting, at the time of deposit, bills for which the materialization of a transaction is completed, one withdrawal box 70 for accepting bills for withdrawal, two recycle boxes 80 for both deposit and withdrawal, a load/recovery box 81 for accepting bills to be supplemented for the recycle boxes 80 and bills recovered from the recycle box, a bill

transport path 50 for transporting bills to the deposit/withdrawal port 20, the temporary storage box 40, the deposit box 60, the withdrawal box 70, the recycle boxes 80, and the load/recovery box 11 while passing the bills through the bill discriminating unit 30, and a control unit which is not illustrated.

Detail Description Paragraph - DETX (8):
[0065] As shown in FIG. 4, a control unit 35 is connected to the body control unit 107 of the machine through the bus 107a. The control unit 35 performs the control of the bill deposit/withdrawal mechanism 1 in accordance with a command from the body control section 107 and the detection of the state of the bill deposit/withdrawal mechanism 1, and sends the state of the bill deposit/withdrawal mechanism 1 to the body control section 107, as required. In the bill deposit/withdrawal mechanism 1, the control unit 35 is connected to a driving motor, electromagnetic solenoid or sensor of each unit (the deposit/withdrawal port 20, the bill discriminating unit 30, the temporary storage box 40, the bill transport path 50, the deposit box 60, the withdrawal box 70, the recycle boxes 80, and the load/recovery box 81) to control the driving of actuators in accordance with transactions while monitoring the states by use of the sensors.

Detail Description Paragraph - DETX (9):
[0066] As shown in FIG. 3, the present deposit/withdrawal machine 1 is composed of an upper transport mechanism 1a and a lower bill mechanism 1b. The upper transport mechanism 1a is composed of the deposit/withdrawal port 20, the bill discriminating unit 30, the temporary storage box 40, and the bill transport path 50. The lower bill mechanism 1b is composed of the deposit box 60, the withdrawal box 70, the recycle boxes 80, the load/recovery box 81, and an openable/closable transport path 90 provided in front of respective accepting boxes. Furthermore, the lower bill mechanism 1b is mounted within the bill box casing 106 made of a thick iron plate having a thickness of approximately 50 mm. The transport path of the upper transport mechanism 1a is connected to the transport path of the lower transport mechanism 1b through a coupling transport path 501h.

As is discussed in Katou, the **recycle boxes** (80) take in bills only to be stored, **not** to be **withdrawn**. Thus these bills are construed as being stored in this box, i.e., recycle box (80) in a **non-dispensable condition**. On the contrary, Katou also discloses a **withdrawal box** (70). Such a **withdrawal box** is disclosed as storing bills for both **deposit and withdrawal**, and is thus construed as holding bills stored in a

dispensable condition. The **temporary storage box** (40) is also likewise considered to hold bills stored in a **dispensable condition** because the bills are fed to it and are withdrawn from it to be dispensed, despite their acceptability to the machine, back to the user. Such a dispensing event can also be considered to be the same situation as if the user received the entire amount of cash back. Even if the temporary box is ignored, the withdrawal box expressly discloses storing bills for both deposit and withdrawal to make change.

Further regarding the concept of change, note that Ramachandran discloses an ATM that is retrofitted into an existing vending machine. Ramachandran also teaches that such a vending machine requires making change to a customer at col. 41, lines 25-35, reproduced as follows.

> 153) In some embodiments the controller may operate to provide the merchant user with messages prompting the user to indicate the number and denomination of notes they wish to receive. This may be valuable to a merchant user who requires particular denominations of notes from the machine to carry out the efficient operation of their business, such as for making change. Various approaches to presenting merchant users with withdrawal options may be provided in embodiments of the invention through programming of a controller which controls operation of the machine.

Since such a vending machine environment requires that change be made, it would have been obvious to cause Jones' apparatus to also make change from a withdrawal box since such a withdrawal box is designed for both ingress and egress of bills. Additionally, note that it would have been obvious based upon basic principles of commerce to make change with various denominations of bills, as would be necessary to complete a purchase with a larger bill than the price of the item being vended. Depending upon the prevalence of larger bills, one ordinarily skilled in the art would

have found it obvious to make change for any particular sized bill that customers would be expected to want to use to make a transaction, therefore promoting increased sales.

Finally, Regarding Claims 19 and 20, which require the "vending machine protocol program to accept notes only up to a first value limitation...and a processor controlling the acceptance and recognition of notes up to a second value exceeding said first value limitation", note that Pope teaches upgrading a vending machine, which accepts coins or bills up to a one value, and increasing the capability of the vending machine to accept bills of a higher value by installing a bill validator having a processor controller that allows bills of a second value, higher than the vending machine controller's first value limitation. See again, Pope, as cited in the rejection above, at paragraph 6, for example. Pope discloses changing the scaling factor to a new scaling factor that can be used both by the validator processor controller and the vending machine controller.

Since Applicant's Claims are considered to read on the prior art as described above, Claims 1-5 and 7-20 are rejected.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY A. SHAPIRO whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey A. Shapiro/
Primary Examiner, Art Unit 3653

August 13, 2008